



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/026,690	12/27/2001	Stefaan De Cnodder	Q67666	9306
23373	7590	12/16/2010	EXAMINER	
SUGHRUE MION, PLLC 2100 PENNSYLVANIA AVENUE, N.W. SUITE 800 WASHINGTON, DC 20037			SOL, ANTHONY M	
			ART UNIT	PAPER NUMBER
			2465	
			NOTIFICATION DATE	DELIVERY MODE
			12/16/2010	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

sughrue@sughrue.com
PPROCESSING@SUGHRUE.COM
USPTO@SUGHRUE.COM

Office Action Summary	Application No. 10/026,690	Applicant(s) DE CNODDER ET AL.	
	Examiner ANTHONY SOL	Art Unit 2465	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 July 2010.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

- The prosecution is reopened in light of the BPAI decision mailed 7/30/2010.
- Claims 1-16 remain pending.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Troxel (US Pat. 6,147,970) (hereinafter "Troxel") in view of Wang et al. (US Pat. 6,748,435) (hereinafter "Wang").

Regarding claims 1, 8, 15 and 16,

Troxel shows in fig. 11 holding a threshold value 102 or 104 depending on whether the packet was conforming or non-conforming in the first stage 88 for an aggregate token counter N 100 (claimed *traffic reservation parameter*), said threshold value lying between minimum of (where bhr=0 of fig. 10) and said maximum value (col. 20, lines 42-44) of said traffic reservation parameter.

Troxel discloses that aggregate token counter 100 is updated by token rate R (claimed *metering said actual value of said traffic reservation parameter*).

Troxel further discloses comparing the number of tokens the packet requires to aggregate token counter 100 minus aggregate headroom threshold value 104, which equals bh-bhr level of fig. 9 (*claimed said actual value of said traffic reservation parameter exceeds said threshold value*). Troxel further discloses that if there are enough tokens, then the packet may be marked conforming (*claimed determining said packet marking of and marking each of said packets on said actual value of traffic reservation parameter*)(col. 21, lines 3-12).

Troxel does not disclose that if said actual value of said traffic reservation parameter is below said threshold value for said traffic reservation parameter, determining said packet marking of and marking each of said packets based on a pre-assigned priority of the packet.

Wang discloses that if the arriving rate of the green packets from the upstream domain 110 is equal to the token filling rate r , the token consumption rate of the packets flowing between upstream domain 110 and downstream 114 is the same as the token filling rate from rate generator 120. Therefore, the number of tokens in the packet remarking device 122 remains in the balanced region 132 (*claimed actual value of said traffic reservation parameter is below said threshold value for said traffic reservation parameter; claimed threshold value is mapped to TH 136 of fig. 6 of Wang*). **Each** of the packets is forwarded without changing the color of the packet (*claimed determining said packet marking of and marking each of said packets based on a pre-assigned priority of the packet*)(col. 5, lines 60-67).

It would have been *prima facie* obvious to one of ordinary skill in the art at the time the invention was made to modify the token bucket method of Troxel to forward a packet without changing the color of the packet if the number of tokens in the packet remarking device 122 remains in the balanced region 132 (i.e., the number of tokens is below the threshold TH 136 of fig. 6). One skilled in the art would have been motivated to make the combination since there are not enough tokens to promote the packet yet there are enough tokens to not demote the packet (Wang, col. 5, lines 48-67).

3. Regarding claims 2 and 9,

Troxel does not disclose one additional pre-assigned priority for each said packet with separate threshold.

Wang discloses a differentiated services code point (DSCP) by a traffic conditioning marker with one class of service called expedited forwarding (EF), which is ideal for real-time services such as IP telephony, video conferences, and other real-time applications (claimed *additional pre-assigned priority*). Wang further discloses that real-time services would be allocated only a small percentage of network capacity and would be assigned to a high-priority queue in the routers (suggests *threshold*)(col. 2, lines 11-61).

It would have been *prima facie* obvious to one of ordinary skill in the art at the time of the invention was made to modify the marking determining method of Troxel so that an additional pre-assigned priority such as for EF class having a threshold value assigned to limited network capacity as disclosed by Wang. One skilled in the art would

Art Unit: 2465

have been motivated to make the combination to balance the need for QoS assurances for real-time applications with the limited network resources allocated for them versus network resources allocated for non-real time traffic (Wang, col. 2, lines 35-39).

4. Regarding claims 3 and 10,

Troxel discloses the reservation traffic parameter is the filling level of a token bucket (figures 9 and 10).

5. Regarding claims 4 and 11,

Troxel discloses that the number of tokens required for passing the arriving message is determined by attributes of the arriving message, for example one token for each byte of message size (claimed *traffic reservation parameter is a sending rate estimate*)(col. 2, lines 55-60)

6. Regarding claims 5 and 12,

Troxel discloses that a message that arrives with a high priority value (claimed *pre-assigned priority*) is marked non-conforming if the token counter is below the number of tokens required for passing, wherein "non-conforming" message is also referred to as "not protected against loss" (claimed *packet loss priority*)(col. 2, lines 62-66).

7. Regarding claims 6 and 13,

Troxel discloses the pre-assigned priority is the packet traffic category (col. 2, lines 46-49).

8. Regarding claims 7 and 14,

Troxel discloses that messages forwarded to the node have one of at least two priorities, a normal priority and a high priority (claimed *pre-assigned priority*)(col. 2, lines 48-49), wherein the forwarded message having a certain priority is often referred to as having a certain Quality of Service (claimed *type of sender*)(col. 2, lines 33-34).

Response to Arguments

9. Applicant's arguments with respect to claims 1-16 have been considered but are moot in view of the new ground(s) of rejection. The revised rejection of Troxel in view of Wang cites Wang as disclosing the limitation "*if said actual value of said traffic reservation parameter is below said threshold value for said traffic reservation parameter, determining said packet marking of and marking each of said packets based on a pre-assigned priority of the packet.*"

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ANTHONY SOL whose telephone number is (571)272-5949. The examiner can normally be reached on M-F 7:30am - 4pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jay Patel can be reached on (571) 272-2988. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/A. S./

Examiner, Art Unit 2465

12/11/2010

/Jayanti K. Patel/

Supervisory Patent Examiner, Art Unit 2465